

Abstract

Improved injection molding machine heater apparatus using thick-film layers applied directly on a thermally
5 conductive substrate or directly onto the melt channel. Preferably, the substrate is cylindrically shaped with a slot running the length of the substrate. The thick film layers and substrate have substantially equal coefficient of thermal expansion. Preferably, the heater assembly has a lower
10 coefficient of thermal expansion than the machine channel it is installed on so as to increase the thermal communication as they heat up. A heat resistant connector housing is slidably installed over the heater assembly for mechanical connection of
15 conductors to the heater without the use of soldering, brazing, welding or other failure prone connection means.